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**NATIONAL ADVISORY COMMITTEE
FOR AERONAUTICS**

**LIST OF REPORTS
WITH PRICES**



EDITION JANUARY 1938

NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS

LIST OF REPORTS WITH PRICES

EDITION JANUARY 1938



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³ 238	The Effect of Flight Path Inclination on Airplane Velocity. By Walter S. Diehl. (Twelfth Annual, 1926)-----	-----
³ 249	A Comparison of the Take-off and Landing Characteristics of a Number of Service Airplanes. By Thomas Carroll. (Twelfth Annual, 1926)-----	-----
257	Pressure Distribution over a Wing and Tail Rib of a VE-7 and of a TS Airplane in Flight. By J. W. Crowley, jr. (Thirteenth Annual, 1927)-----	. 15
³ 265	A Full-Scale Investigation of Ground Effect. By Elliott G. Reid. (Thirteenth Annual, 1927)-----	-----
293	Two Practical Methods for the Calculation of the Horizontal Tail Area Necessary for a Statically Stable Airplane. By Walter S. Diehl. (Fourteenth Annual, 1928)-----	. 10
297	The Reduction of Observed Airplane Performance to Standard Conditions. By Walter S. Diehl. (Fourteenth Annual, 1928)-----	. 15
304	An Investigation of the Aerodynamic Characteristics of an Airplane Equipped with Several Different Sets of Wings. By J. W. Crowley, jr., and M. W. Green. (Fourteenth Annual, 1928)-----	. 10
307	The Pressure Distribution over the Horizontal and Vertical Tail Surfaces of the F6C-4 Pursuit Airplane in Violent Maneuvers. By R. V. Rhode. (Fourteenth Annual, 1928)-----	. 10

³ Out of print. Available as a separate report for reference or loan in the Office of Aeronautical Intelligence, National Advisory Committee for Aeronautics.

AIRPLANES—FULL-SCALE EXPERIMENTS—Continued

No.	Title	Price
364	The Pressure Distribution over the Wings and Tail Surfaces of a PW-9 Pursuit Airplane in Flight. By Richard V. Rhode. (Sixteenth Annual, 1930)-----	\$0. 60
366	Dynamic and Flight Tests on Rubber-Cord and Oleo-Rubber-Disk Landing Gears for an F6C-4 Airplane. By William C. Peck. (Seventeenth Annual, 1931)-----	. 10
368	A New Chart for Estimating the Absolute Ceiling of an Airplane. By Walter S. Diehl. (Seventeenth Annual, 1931)-----	. 10
369	Maneuverability Investigation of the F6C-3 Airplane with Special Flight Instruments. By C. H. Dearborn and H. W. Kirschbaum. (Seventeenth Annual, 1931)-----	. 15
377	A Method of Flight Measurement of Spins. By Hartley A. Soulé and Nathan F. Scudder. (Seventeenth Annual, 1931)-----	. 10
380	Pressure Distribution over the Fuselage of a PW-9 Pursuit Airplane in Flight. By Richard V. Rhode and Eugene E. Lundquist. (Seventeenth Annual, 1931)-----	. 20
381	Static, Drop, and Flight Tests on Musselman Type Airwheels. By William C. Peck and Albert P. Beard. (Seventeenth Annual, 1931)-----	. 15
386	Maneuverability Investigation of an F6C-4 Fighting Airplane. By C. H. Dearborn and H. W. Kirschbaum. (Seventeenth Annual, 1931)-----	. 20
403	Ice Prevention on Aircraft by Means of Engine Exhaust Heat and a Technical Study of Heat Transmission from a Clark Y Airfoil. By Theodore Theodorsen and William C. Clay. (Eighteenth Annual, 1932)-----	. 20
406	Drop and Flight Tests on NY-2 Landing Gears, Including Measurements of Vertical Velocities at Landing. By W. C. Peck and A. P. Beard. (Eighteenth Annual, 1932)-----	. 15
408	General Formulas and Charts for the Calculation of Airplane Performance. By W. Bailey Oswald. (Eighteenth Annual, 1932)-----	. 25

AIRPLANES—FULL-SCALE EXPERIMENTS—Continued

No.	Title	Price
413	A Method for Computing Leading-Edge Loads. By Richard V. Rhode and Henry A. Pearson. (Eighteenth Annual, 1932)-----	\$0. 10
414	The Effect on Airplane Performance of the Factors that Must be Considered in Applying Low-Drag Cowling to Radial Engines. By William H. McAvoy, Oscar W. Schey, and Alfred W. Young (Eighteenth Annual, 1932)-----	. 20
418	Preliminary Investigation of Modifications to Conventional Airplanes to Give Nonstalling and Short-Landing Characteristics. By Fred E. Weick. (Eighteenth Annual, 1932)-----	. 05
441	A Flight Investigation of the Spinning of the NY-1 Airplane with Varied Mass Distribution and Other Modifications, and an Analysis Based on Wind-Tunnel Tests. By Nathan F. Scudder. (Nineteenth Annual, 1933)-----	. 10
450	The Calculation of Take-Off Run. By Walter S. Diehl. (Nineteenth Annual, 1933)-----	. 05
457	Maneuverability Investigation of an "O3U-1" Observation Airplane. By F. L. Thompson and H. W. Kirschbaum. (Nineteenth Annual, 1933)-----	. 05
458	Relative Loading on Biplane Wings. By Walter S. Diehl. (Nineteenth Annual, 1933)-----	10
482	Wing-Fuselage Interference, Tail Buffeting, and Air Flow about the Tail of a Low-Wing Monoplane. By James A. White and Manley J. Hood. (Twentieth Annual, 1934)-----	. 10
484	A Flight Investigation of the Effect of Mass Distribution and Control Setting on the Spinning of the XN2Y-1 Airplane. By N. F. Scudder. (Twentieth Annual, 1934)-----	. 05
485	The Drag of Airplane Wheels, Wheel Fairings, and Landing Gears—I. By William H. Herrstein, Jr., and David Biermann. (Twentieth Annual, 1934)-----	. 10
489	Air Conditions Close to the Ground and the Effect on Airplane Landings. By F. L. Thompson, W. C. Peck, and A. P. Beard. (Twentieth Annual, 1934)-----	. 10

AIRPLANES—FULL-SCALE EXPERIMENTS—Continued

No.	Title	Price
494	A Flight Investigation of the Lateral Control Characteristics of Short Wide Ailerons and Various Spoilers with Different Amounts of Wing Dihedral. By Fred E. Weick, Hartley A. Soulé, and Melvin N. Gough. (Twentieth Annual, 1934)-----	\$0. 10
498	Improved Airplane Windshields to Provide Vision in Stormy Weather. By William C. Clay. (Twentieth Annual, 1934)-----	. 10
500	The Influence of Tip Shape on the Wing Load Distribution as Determined by Flight Tests. By Richard V. Rhode. (Twentieth Annual, 1934)-----	. 10
501	Relative Loading on Biplane Wings of Unequal Chords. By Walter S. Diehl. (Twentieth Annual, 1934)-----	. 05
514	The Measurement of the Field of View from Airplane Cockpits. By Melvin N. Gough. (Twenty-first Annual, 1935)-----	. 10
517	Flight Investigation of Lateral Control Devices for Use with Full-Span Flaps. By H. A. Soulé and W. H. McAvoy. (Twenty-first Annual, 1935)-----	. 10
518	The Drag of Airplane Wheels, Wheel Fairings, and Landing Gears—II. Nonretractable and Partly Retractable Landing Gears. By David Biermann and William H. Herrnstein, Jr. (Twenty-first Annual, 1935)-----	. 10
522	The Drag of Airplane Wheels, Wheel Fairings, and Landing Gears—III. By William H. Herrnstein, Jr., and David Biermann. (Twenty-first Annual, 1935)-----	. 10
529	A Flight Investigation of the Spinning of the F4B-2 Biplane with Various Loads and Tail Surfaces. By N. F. Scudder and Oscar Seidman. (Twenty-first Annual, 1935)-----	. 10
539	Investigation of Full-Scale Split Trailing-Edge Wing Flaps with Various Chords and Hinge Locations. By Rudolf Wallace. (Twenty-first Annual, 1935)-----	. 10
559	The Forces and Moments Acting on Parts of the XN2Y-1 Airplane During Spins. By N. F. Scudder. (Twenty-second Annual, 1936)-----	. 05

AIRPLANES—FULL-SCALE EXPERIMENTS—Continued

No.	Title	Price
578	Flight Measurements of the Dynamic Longitudinal Stability of Several Airplanes and a Correlation of the Measurements with Pilots' Observations of Handling Characteristics. By Hartley A. Soulé. (Twenty-third Annual, 1937)-----	\$0. 10
583	The Rolling Friction of Several Airplane Wheels and Tires and the Effect of Rolling Friction on Take-Off. By J. W. Wetmore. (Twenty-third Annual, 1937)-----	. 10
590	Pressure-Distribution Measurements on an O-2H Airplane in Flight. By H. A. Pearson. (Twenty-third Annual, 1937)-----	. 15
602	Wind-Tunnel and Flight Tests of Slot-Lip Ailerons. By Joseph A. Shortal. (Twenty-third Annual, 1937)-----	. 15
618	Comparative Flight and Full-Scale Wind-Tunnel Measurements of the Maximum Lift of an Airplane. By Abe Silverstein, S. Katzoff, and James A. Hootman. (Twenty-fourth Annual Report, 1938)-----	

AIRPLANES—MODEL EXPERIMENTS

³ 74	Construction of Models for Tests in Wind Tunnels. By F. H. Norton. (Fifth Annual, 1919)-----	
119	The Pressure Distribution over the Horizontal Tail Surfaces of an Airplane—II. By F. H. Norton and D. L. Bacon. (Seventh Annual, 1921)-----	\$0. 10
122	Preliminary Experiments to Determine Scale and Slip Stream Effects on a 1/24th Size Model of a JN4H Biplane. By D. L. Bacon. (Seventh Annual, 1921)-----	. 05
³ 133	The Tail Plane. By Max M. Munk. (Eighth Annual, 1922)-----	
136	Damping Coefficients Due to Tail Surfaces in Aircraft. By Lynn Chu. (Eighth Annual, 1922)-----	. 05

³ Out of print. Available as a separate report for reference or loan in the Office of Aeronautical Intelligence, National Advisory Committee for Aeronautics.

AIRPLANES—MODEL EXPERIMENTS—Continued

No.	Title	Price
137	Point Drag and Total Drag of Navy Struts No. 1 Modified. By A. F. Zahm, R. H. Smith, and G. C. Hill. (Eighth Annual, 1922)-----	\$0. 05
³ 140	Lift and Drag Effects on Wing Tip-Rake. By A. F. Zahm, R. M. Bear, and G. C. Hill. (Eighth Annual, 1922)-----	-----
219	Some Aspects of the Comparison of Model and Full-Scale Tests. By D. W. Taylor. (Eleventh Annual, 1925)-----	. 10
³ 225	The Air Forces on a Model of the Sperry Messenger Airplane Without Propeller. By Max M. Munk and Walter S. Diehl. (Eleventh Annual, 1925)-----	-----
236	Tests on Airplane Fuselages, Floats, and Hulls. By Walter S. Diehl. (Twelfth Annual, 1926)-----	. 15
254	Distribution of Pressure Over Model of the Upper Wing and Aileron of a Fokker D-VII Airplane. By A. J. Fairbanks. (Twelfth Annual, 1926)-----	. 10
256	The Air Forces on a Systematic Series of Biplane and Triplane Cellule Models. By Max M. Munk. (Twelfth Annual, 1926)-----	. 15
260	The Effect of a Flap and Ailerons on the N. A. C. A.-M6 Airfoil Section. By George J. Higgins and Eastman N. Jacobs. (Thirteenth Annual, 1927)-----	. 10
266	Air Force and Moment for N-20 Wing with Certain Cut-Outs. By R. H. Smith. (Thirteenth Annual, 1927)-----	. 05
³ 269	Air Force Tests of Sperry Messenger Model with Six Sets of Wings. By James M. Shoemaker. (Thirteenth Annual, 1927)-----	-----
273	Wind Tunnel Tests on Autorotation and the "Flat Spin." By Montgomery Knight. (Thirteenth Annual, 1927)-----	. 10
279	Tests on Models of Three British Airplanes in the Variable Density Wind Tunnel. By George J. Higgins, W. S. Diehl, and George L. DeFoe. (Thirteenth Annual, 1927)-----	. 15

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No.	Title	Price
296	Pressure Distribution Tests on PW-9 Wing Models from -18° Through 90° Angle of Attack. By Oscar E. Loeser, Jr. (Fourteenth Annual, 1928)-----	\$0. 15
415	Tests of Nacelle-Propeller Combinations in Various Positions with Reference to Wings. Part I. Thick Wing—N. A. C. A. Cowled Nacelle—Tractor Propeller. By Donald H. Wood. (Eighteenth Annual, 1932)-----	
417	Pressure Distribution Tests on a Series of Clark Y Biplane Cellules with Special Reference to Stability. By Richard W. Noyes. (Eighteenth Annual, 1932)-----	. 10
419	Wind-Tunnel Research Comparing Lateral Control Devices, Particularly at High Angles of Attack. I—Ordinary Ailerons on Rectangular Wings. By Fred E. Weick and Carl J. Wenzinger. (Eighteenth Annual, 1932)-----	. 10
422	Wind-Tunnel Research Comparing Lateral Control Devices, Particularly at High Angles of Attack. II—Slotted Ailerons and Frise Ailerons. By Fred E. Weick and Richard W. Noyes. (Eighteenth Annual, 1932)-----	. 10
423	Wind-Tunnel Research Comparing Lateral Control Devices, Particularly at High Angles of Attack. III—Ordinary Ailerons Rigged up 10° When Neutral. By Fred E. Weick and Carl J. Wenzinger. (Eighteenth Annual, 1932)-----	. 05
424	Wind-Tunnel Research Comparing Lateral Control Devices, Particularly at High Angles of Attack. IV—Floating Tip Ailerons on Rectangular Wings. By Fred E. Weick and Thomas A. Harris. (Eighteenth Annual, 1932)-----	. 05
436	Tests of Nacelle-Propeller Combinations in Various Positions with Reference to Wings. II—Thick Wing—Various Radial-Engine Cowlings—Tractor Propeller. By Donald H. Wood. (Eighteenth Annual, 1932)-----	. 10

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437	The Effect of Area and Aspect Ratio on the Yawing Moments of Rudders at Large Angles of Pitch on Three Fuselages. By Hugh L. Dryden and B. H. Monish. (Eighteenth Annual, 1932)-----	\$0. 05
439	Wind-Tunnel Research Comparing Lateral Control Devices, Particularly at High Angles of Attack. V—Spoilers and Ailerons on Rectangular Wings. By Fred E. Weick and Joseph A. Shortal. (Eighteenth Annual, 1932).-----	. 10
444	Wind-Tunnel Research Comparing Lateral Control Devices, Particularly at High Angles of Attack. VI—Skewed Ailerons on Rectangular Wings. By Fred E. Weick and Thomas A. Harris. (Nineteenth Annual, 1933)-----	. 05
445	Working Charts for the Determination of the Lift Distribution between Biplane Wings. By Paul Kuhn. (Nineteenth Annual, 1933)---	. 10
456	The Aerodynamic Forces and Moments Exerted on a Spinning Model of the "NY-1" Airplane as Measured by the Spinning Balance. By M. J. Bamber and C. H. Zimmerman. (Nineteenth Annual, 1933)-----	. 05
462	Tests of Nacelle-Propeller Combinations in Various Positions with Reference to Wings. III—Clark Y Wing—Various Radial-Engine Cowlings—Tractor Propeller. By Donald H. Wood. (Nineteenth Annual, 1933)-----	. 10
468	The Interference between Struts in Various Combinations. By David Biermann and William H. Herrnstein, Jr. (Nineteenth Annual, 1933)---	. 05
472	Wind-Tunnel Tests on Combinations of a Wing with Fixed Auxiliary Airfoils having Various Chords and Profiles. By Fred E. Weick and Robert Sanders. (Nineteenth Annual, 1933)---	. 10
499	Wind-Tunnel Research Comparing Lateral Control Devices, Particularly at High Angles of Attack. XII—Upper-Surface Ailerons on Wings with Split Flaps. By Fred E. Weick and Carl J. Wenzinger. (Twentieth Annual, 1934)-----	. 10

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No.	Title	Price
505	Tests of Nacelle-Propeller Combinations in Various Positions with Reference to Wings. IV—Thick Wing—Various Radial-Engine Cowlings—Tandem Propellers. By James G. McHugh. (Twentieth Annual, 1934)-----	\$0. 15
506	Tests of Nacelle-Propeller Combinations in Various Positions with Reference to Wings. V—Clark Y Biplane Cellule—N. A. C. A. Cowled Nacelle—Tractor Propeller. By E. Floyd Valentine. (Twentieth Annual, 1934)---	. 10
507	Tests of Nacelle-Propeller Combinations in Various Positions with Reference to Wings. VI—Wings and Nacelles with Pusher Propeller. By Donald H. Wood and Carlton Bioletti. (Twentieth Annual, 1934)-----	. 10
510	Wind-Tunnel Research Comparing Lateral Control Devices, Particularly at High Angles of Attack. XIII—Auxiliary Airfoils Used as External Ailerons. By Fred E. Weick and Richard W. Noyes. (Twenty-first Annual, 1935)-----	. 10
519	Spinning Characteristics of Wings. I—Rectangular Clark Y Monoplane Wing. By M. J. Bamber and C. H. Zimmerman. (Twenty-first Annual, 1935)-----	. 10
528	Reduction of Hinge Moments of Airplane Control Surfaces by Tabs. By Thomas A. Harris. (Twenty-first Annual, 1935)-----	. 10
540	Interference of Wing and Fuselage from Tests of 209 Combinations in the N. A. C. A. Variable-Density Tunnel. By Eastman N. Jacobs and Kenneth E. Ward. (Twenty-first Annual, 1935)-----	. 10
549	Wind-Tunnel Investigation of the Aerodynamic Balancing of Upper-Surface Ailerons and Split Flaps. By Carl J. Wenzinger. (Twenty-second Annual, 1936)-----	. 10
570	The Effect of Lateral Controls in Producing Motion of an Airplane as Computed from Wind-Tunnel Data. By Fred E. Weick and Robert T. Jones. (Twenty-second Annual, 1936)-----	. 10

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No.	Title	Price
602	Wind-Tunnel and Flight Tests of Slot-Lip Ailerons. By Joseph A. Shortal. (Twenty-third Annual, 1937)-----	\$0. 15
603	Wind-Tunnel Investigation of Wings with Ordinary Ailerons and Full-Span External-Airfoil Flaps. By Robert C. Platt and Joseph A. Shortal. (Twenty-third Annual, 1937)-----	
607	Spinning Characteristics of the XN2Y-1 Airplane Obtained from the Spinning Balance and Compared with Results from the Spinning Tunnel and from Flight Tests. By M. J. Bamber and R. O. House. (Twenty-third Annual, 1937)-----	. 10
609	Experimental Investigation of Wind-Tunnel Interference on the Downwash Behind an Airfoil. By Abe Silverstein and S. Katzoff. (Twenty-third Annual, 1937)-----	. 10

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³ 115	Bending Moments, Envelope, and Cable Stresses in Non-Rigid Airships. By C. P. Burgess. (Seventh Annual, 1921)-----	\$0. 05
117	The Drag of Zeppelin Airships. By Max M. Munk. (Seventh Annual, 1921)-----	
138	The Drag of C Class Airship Hull with Varying Length of Cylindric Midships. By A. F. Zahm, R. H. Smith, and G. C. Hill. (Eighth Annual, 1922)-----	. 05
164	The Inertia Coefficients of an Airship in a Frictionless Fluid. By H. Bateman. (Ninth Annual, 1923)-----	. 05
³ 184	The Aerodynamic Forces on Airship Hulls. By Max M. Munk. (Ninth Annual, 1923)-----	. 05
204	Forces on Airships in Gusts. By C. P. Burgess. (Tenth Annual, 1924)-----	
208	Determination of Turning Characteristics of an Airship by Means of a Camera Obscura. By J. W. Crowley, jr., and R. G. Freeman. (Tenth Annual, 1924)-----	. 10

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No.	Title	Price
210	Inertia Factors of Ellipsoids for Use in Airship Design. By L. B. Tuckerman. (Eleventh Annual, 1925)-----	\$0. 05
211	Water Model Tests for Semirigid Airships. By L. B. Tuckerman. (Eleventh Annual, 1925) ..	. 05
212	Stability Equations for Airship Hulls. By A. F. Zahm. (Eleventh Annual, 1925)-----	. 05
215	Air Forces, Moments, and Damping on Model of Fleet Airship Shenandoah. By A. F. Zahm, R. H. Smith, and F. A. Loudon. (Eleventh Annual, 1925)-----	. 15
223	Pressure Distribution on the C-7 Airship. By J. W. Crowley, jr., and S. J. DeFrance. (Eleventh Annual, 1925)-----	. 15
291	Drag of C-Class Airship Hulls of Various Finess Ratios. By A. F. Zahm, R. H. Smith, and F. A. Loudon. (Fourteenth Annual, 1928) ..	. 10
318	Speed and Deceleration Trials of U. S. S. "Los Angeles," September 1927 By S. S. DeFrance and C. P. Burgess. (Fifteenth Annual, 1929) ..	. 10
324	Flight Tests on U. S. S. "Los Angeles " Part I. Full Scale Pressure Distribution Investigation. By S. J. DeFrance.- (Fifteenth Annual, 1929) ..	. 15
325	Flight Tests on U. S. S. "Los Angeles." Part II. Stress and Strength Determination. By C. P. Burgess. (Fifteenth Annual, 1929)-----	. 15
333	Full Scale Turning Characteristics of the U. S. S. "Los Angeles." By F. L. Thompson. (Fifteenth Annual, 1929)-----	. 10
394	Airship Model Tests in the Variable Density Wind Tunnel. By Ira H. Abbott. (Seventeenth Annual, 1931)-----	. 20
397	The Drag Characteristics of Several Airships Determined by Deceleration Tests. By F. L. Thompson and H. W. Kirschbaum. (Seventeenth Annual, 1931)-----	. 10
405	Application of Practical Hydrodynamics to Airship Design. By Ralph H. Upson and W. A. Klikoff. (Eighteenth Annual, 1932)-----	. 15
430	Measurements of Flow in the Boundary Layer of a 1/40-scale Model of the U. S. Airship "Akron." By Hugh B. Freeman. (Eighteenth Annual, 1932)-----	. 05

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No.	Title	Price
432	Force Measurements on a 1/40-Scale Model of the U. S. Airship "Akron." By Hugh B. Freeman. (Eighteenth Annual, 1932)-----	\$0. 05
443	Pressure-Distribution Measurements on the Hull and Fins of a 1/40-Scale Model of the U. S. Airship "Akron." By Hugh B. Freeman. (Nineteenth Annual, 1933)-----	. 05
451	The Drag of Two Streamline Bodies as Affected by Protuberances and Appendages. By Ira H. Abbott. (Nineteenth Annual, 1933)-----	. 05
566	Ground-Handling Forces on a 1/40-Scale Model of the U. S. Airship "Akron." By Abe Silverstein and B. G. Gulick. (Twenty-second Annual, 1936)-----	. 10
604	Pressure-Distribution Measurements at Large Angles of Pitch on Fins of Different Span-Chord Ratio on a 1/40-Scale Model of the U. S. Airship "Akron." By James G. McHugh. (Twenty-third Annual, 1937)-----	. 10

ENGINES AND ACCESSORIES

¹ 7	Thermodynamic Efficiency of Present Types of Internal Combustion Engines for Aircraft. By Charles E. Lucke, Columbia University. (First Annual, 1915)----- Part I. Review of the Development of Engines Suitable for Aeronautic Service. Part II. Aero Engines Analyzed with Reference to Elements of Process or Function.	
¹ 10	Mufflers for Aeronautic Engine. By H. Diederichs and G. B. Upton. (Second Annual, 1916)-----	
¹ 11	Carburetor Design—A Preliminary Study of the State of the Art. By Charles Edward Lucke, assisted by Friederich Otto Willhöft. (Second Annual, 1916)-----	

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¹ 23	Aeronautic Power-Plant Investigations. By the Subcommittee on Power Plants. (Third Annual, 1917)----- Part I. Performance of Aeronautic Engines at High Altitudes. Part II. Radiator Design. Part III. Spark Plugs.	
³ 24	Air Flow through Poppet Valves. By E. M. Nutting and G. W. Lewis. (Fourth Annual, 1918)-----	
³ 43	Synopsis of Aeronautic Radiator Investigations for the years 1917 and 1918. By H. C. Dickinson and R. V. Kleinschmidt. (Fourth Annual, 1918)-----	
³ 45	Effect of Compression Ratio, Pressure, Temperature, and Humidity on Power. (Fourth Annual, 1918)----- Part I. Variation of Horsepower with Altitude and Compression Ratio, By H. C. Dickinson, W. S. James, and G. V. Anderson. Part II. Value of Supercharging. By H. C. Dickinson and G. V. Anderson. Part III. Variation of Horsepower with Temperature. By H. C. Dickinson, W. S. James, and G. V. Anderson. Part IV. Influence of Water Injection on Engine Performance. By V. W. Brinkerhoff.	
³ 46	A Study of Airplane Engine Tests. By Victor R. Gage. (Fourth Annual, 1918)-----	
³ 48	Carbureting Conditions Characteristic of Aircraft Engines. By Percival S. Tice. (Fourth Annual, 1918)-----	

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³ 49	Metering Characteristics of Carburetors. (Fourth Annual, 1918)-----	-----
	Part I. Description of Carburetor Test Plant. By Percival S. Tice.	
	Part II. Discharge Characteristics of Fuel Metering Nozzles in Carburetors. By Percival S. Tice.	
	Part III. Characteristics of Air Flow in Carburetors. By Percival S. Tice.	
	Part IV. Effects of Pulsating Air Flow in Carburetors. By Percival S. Tice and H. C. Dickinson.	
	Part V. Natural and Required Metering Characteristics of Carburetors. By Percival S. Tice.	
	Part VI. Control of Carburetor Metering Characteristics for Aircraft Service. By Percival S. Tice and H. C. Dickinson.	
³ 51	Spark Plug Defects and Tests. (Fifth Annual, 1919)-----	-----
	Part I. Causes of Failure of Spark Plugs. By F. B. Silsbee.	
	Part II. Gas Leakage in Spark Plugs. By L. B. Loeb, L. G. Sawyer, and E. L. Fonseca.	
	Part III. Methods for Testing Spark Plugs. By H. C. Dickinson, F. B. Silsbee, and P. G. Agnew.	
52	Temperatures in Spark Plugs Having Steel and Brass Shells. By C. S. Cragoe. (Fifth Annual, 1919)-----	\$0. 05
³ 53	Properties and Preparation of Ceramic Insulators for Spark Plugs. (Fifth Annual, 1919)-----	-----
	Part I. Methods of Measuring Resistance of Insulators at High Temperatures. By F. B. Silsbee and R. K. Honaman.	
	Part II. Electrical Resistance of Various Insulating Materials at High Temperatures. By R. K. Honaman and E. L. Fonseca.	

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	Properties and Preparation of Ceramic Insulators for Spark Plugs—Continued.	
	Part III. Preparation and Composition of Ceramic Bodies for Spark-Plug Insulators. By A. V. Bleininger.	
	Part IV. Cements for Spark-Plug Electrodes. By H. F. Staley.	
² 54	Effect of Temperature and Pressure on the Sparking Voltage. By L. B. Loeb and F. B. Silsbee. (Fifth Annual, 1919)-----	
55	Investigation of the Muffling Problem for Airplane Engines. By G. B. Upton and V. R. Gage. (Fifth Annual, 1919)-----	\$0. 10
² 56	Heat Energy of Various Ignition Sparks. (Fifth Annual, 1919)-----	
	Part I. Method of Measuring Heat Energy of Ignition Sparks. By F. B. Silsbee, L. B. Loeb, and E. L. Fonseca.	
	Part II. Measurement of Heat Energy per Spark of Various Ignition Systems. By F. B. Silsbee and E. L. Fonseca.	
¹ 57	The Subsidiary Gap as a Means for Improving Ignition. By W. S. Gorton. (Fifth Annual, 1919)-----	
¹ 58	Characteristics of High-Tension Magnetos. By F. B. Silsbee. (Fifth Annual, 1919)-----	
	Part I. Cycle of Operation of Jump-Spark Ignition Systems.	
	Part II. Transformation Ratio and Coupling in High-Tension Magnetos.	
59	General Analysis of Airplane Radiator Problems. By H. C. Dickinson, W. S. James, and R. V. Kleinschmidt. (Fifth Annual, 1919)-----	. 05
60	General Discussion of Test Methods for Radiators. By H. C. Dickinson, W. S. James, and W. B. Brown. (Fifth Annual, 1919)-----	
		. 10

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61	Head Resistance Due to Radiators. (Fifth Annual, 1919)----- Part I. Head Resistance of Radiator Cores. By R. V. Kleinschmidt and S. R. Parsons. Part II. Preliminary Report on Resistance Due to Nose Radiator. By R. V. Kleinschmidt. Part III. Effect of Streamline Casing for Free-Air Radiators. By S. R. Parsons.	\$0. 10
62	Effect of Altitude on Radiator Performance. By W. S. James and S. R. Parsons. (Fifth Annual, 1919)-----	. 10
63	Results of Tests on Radiators for Aircraft Engines. (Fifth Annual, 1919)----- Part I. Heat Dissipation and other Properties of Radiators. By H. C. Dickinson, W. S. James, and R. V. Kleinschmidt. Part II. Water Flow through Radiator Cores. By W. S. James.	. 10
³ 86	Properties of Special Types of Radiators. By S. R. Parsons. (Sixth Annual, 1920)-----	-----
³ 87	Effects of Nature of Cooling Surface on Radiator Performance. By S. R. Parsons, and R. V. Kleinschmidt. (Sixth Annual, 1920)-----	-----
88	Pressure Drop in Radiator Air Tubes. By S. R. Parsons. (Sixth Annual, 1920)-----	. 05
² 101	The Calculated Performance of Airplanes Equipped with Supercharging Engines. By E. C. Kemble. (Sixth Annual, 1920)-----	-----
² 102	Performance of a Liberty 12 Airplane Engine. By S. W. Sparrow and H. S. White. (Sixth Annual, 1920)-----	-----
³ 103	Performance of a 300-Horsepower Hispano-Suiza Airplane Engine. By S. W. Sparrow and H. S. White. (Sixth Annual, 1920)-----	-----
106	Turbulence in the Air Tubes of Radiators for Aircraft Engines. By S. R. Parsons. (Sixth Annual, 1920)-----	. 05
² 108	Some Factors of Airplane Engine Performance. By Victor R. Gage. (Sixth Annual, 1920)-----	-----

³ Out of print. Available as a separate report for reference or loan in the Office of Aeronautical Intelligence, National Advisory Committee for Aeronautics.

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No.	Title	Price
¹ 123	Simplified Theory of the Magneto. By F. B. Silsbee. (Seventh Annual, 1921)-----	
³ 134	Performance of Maybach 300-Horsepower Airplane Engine. By S. W. Sparrow. (Eighth Annual, 1922)-----	
³ 135	Performance of B. M. W. 185-Horsepower Airplane Engine. By S. W. Sparrow. (Eighth Annual, 1922)-----	
³ 158	Mathematical Equations for Heat Conduction in the Fins of Air-cooled Engines. By D. R. Harper, 3d, and W. B. Brown. (Eighth Annual, 1922)-----	
³ 159	Jet Propulsion for Airplanes. By Edgar Buckingham. (Ninth Annual, 1923)-----	
³ 171	Engine Performance and the Determination of Absolute Ceiling. By Walter S. Diehl. (Ninth Annual, 1923)-----	
³ 179	The Effect of Electrode Temperature on the Sparking Voltage of Short Spark Gaps. By F. B. Silsbee. (Ninth Annual, 1923)-----	
³ 187	Flame Speed and Spark Intensity. By D. W. Randolph and F. B. Silsbee. (Tenth Annual, 1924)-----	
³ 189	Relation of Fuel-Air Ratio to Engine Performance. By Stanwood W. Sparrow. (Tenth Annual, 1924)-----	
³ 190	Correcting Horsepower Measurements to a Standard Temperature. By Stanwood W. Sparrow. (Tenth Annual, 1924)-----	
202	The Sparking Voltage of Spark Plugs. By F. B. Silsbee. (Tenth Annual, 1924)-----	\$0. 05
205	The Effect of Changes in Compression Ratio upon Engine Performance. By Stanwood W. Sparrow. (Tenth Annual, 1924)-----	. 10
222	Spray Penetration with a Simple Fuel Injection Nozzle. By Harold E. Miller and Edward G. Beardsley. (Eleventh Annual, 1925)-----	. 05

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No.	Title	Price
224	An Investigation of the Coefficient of Discharge of Liquids through Small Round Orifices. By W. F. Joachim. (Eleventh Annual, 1925)	\$0. 05
3 230	Description and Laboratory Tests of a Roots Type Aircraft Engine Supercharger. By Marsden Ware. (Eleventh Annual, 1925)	-----
3 239	Power Output and Air Requirements of a Two-Stroke Cycle Engine for Aeronautical Use. By C. R. Paton and Carlton Kemper. (Twelfth Annual, 1926)	-----
241	Electrical Characteristics of Spark Generators for Automotive Ignition. By R. B. Brode, D. W. Randolph, and F. B. Silsbee. (Twelfth Annual, 1926)	. 15
243	A Preliminary Study of Fuel Injection and Compression Ignition as Applied to an Aircraft Engine Cylinder. By Arthur W. Gardiner. (Twelfth Annual, 1926)	. 10
250	Description of the N. A. C. A. Universal Test Engine and Some Test Results. By Marsden Ware. (Twelfth Annual, 1926)	. 10
252	The Direct Measurement of Engine Power on an Airplane in Flight with a Hub Type Dynamometer. By W. D. Gove and M. W. Green. (Twelfth Annual, 1926)	. 10
258	Some Factors Affecting the Reproducibility of Penetration and the Cut-Off of Oil Sprays for Fuel Injection Engines. By E. G. Beardsley. (Thirteenth Annual, 1927)	. 05
3 261	Resistance and Cooling Power of Various Radiators. By R. H. Smith. (Thirteenth Annual, 1927)	-----
262	Friction of Aviation Engines. By S. W. Sparrow and M. A. Thorne. (Thirteenth Annual, 1927)	. 10
263	Preliminary Flight Tests of the N. A. C. A. Roots Type Aircraft Engine Supercharger. By Arthur W. Gardiner and Elliott G. Reid. (Thirteenth Annual, 1927)	. 10

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268	Factors in the Design of Centrifugal Type Injection Valves for Oil Engines. By W. F. Joachim and E. G. Beardsley. (Thirteenth Annual, 1927)-----	\$0. 10
272	The Relative Performance Obtained with Several Methods of Control of an Overcompressed Engine Using Gasoline. By Arthur W. Gardiner and William E. Whedon. (Thirteenth Annual, 1927)-----	. 10
274	The N. A. C. A. Photographic Apparatus for Studying Fuel Sprays from Oil Engine Injection Valves and Test Results from Several Researches. By Edward G. Beardsley, (Thirteenth Annual, 1927)-----	. 10
276	Combustion Time in the Engine Cylinder and Its Effect on Engine Performance. By Charles F. Marvin, jr. (Thirteenth Annual, 1927)-----	. 10
277	The Comparative Performance of an Aviation Engine at Normal and High Inlet Air Temperatures. By Arthur W. Gardiner and Oscar W. Schey. (Thirteenth Annual, 1927)-----	. 10
281	The Effects of Fuel and Cylinder Gas Densities on the Characteristics of Fuel Sprays for Oil Engines. By W. F. Joachim and Edward G. Beardsley. (Thirteenth Annual, 1927)-----	. 10
3 282	The Performance of Several Combustion Chambers Designed for Aircraft Oil Engines. By William F. Joachim and Carlton Keniper. (Thirteenth Annual, 1927)-----	-----
283	A Preliminary Investigation of Supercharging an Air-Cooled Engine in Flight. By Marsden Ware and Oscar W. Schey. (Fourteenth Annual, 1928)-----	. 10
284	The Comparative Performance of Roots Type Aircraft Engine Superchargers as Affected by Change in Impeller Speed and Displacement. By Marsden Ware and Ernest E. Wilson. (Fourteenth Annual, 1928)-----	. 10

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No.	Title	Price
294	The Measurement of Maximum Cylinder Pressures. By Chester W. Hicks. (Fourteenth Annual, 1928)-----	\$0. 15
295	The Variation in Engine Power with Altitude Determined from Measurements in Flight with a Hub Dynamometer. By W. D. Gove. (Fourteenth Annual, 1928)-----	. 10
303	An Investigation of the Use of Discharge Valves and an Intake Control for Improving the Performance of N. A. C. A. Roots Type Supercharger. By Oscar W. Schey and Ernest E. Wilson. (Fourteenth Annual, 1928)-----	. 10
313	Drag and Cooling with Various Forms of Cowling for a "Whirlwind" Radial Air-Cooled Engine—I. By Fred E. Weick. (Fifteenth Annual, 1929)-----	. 15
314	Drag and Cooling with Various Forms of Cowling for a "Whirlwind" Radial Air-Cooled Engine—II. By Fred E. Weick. (Fifteenth Annual, 1929)-----	. 20
327	The Effect of Supercharger Capacity on Engine and Airplane Performance. By O. W. Schey and W. D. Gove. (Fifteenth Annual, 1929)---	. 10
330	Experimental and Analytical Determination of the Motion of Hydraulically Operated Valve Stems in Oil Engine Injection Systems. By A. G. Gelalles and A. M. Rothrock. (Fifteenth Annual, 1929)-----	. 10
332	The Effect of Cowling on Cylinder Temperatures and Performance of a Wright J-5 Engine. By Oscar W. Schey and Arnold E. Biermann. (Fifteenth Annual, 1929)-----	. 15
341	The Design and Development of an Automatic Injection Valve with an Annular Orifice of Varying Area. By William F. Joachim, Chester W. Hicks, and Hampton H. Foster. (Sixteenth Annual, 1930)-----	. 10
355	Comparative Flight Performance with an N. A. C. A. Roots Supercharger and a Turbocentrifugal Supercharger. By Oscar W. Schey and Alfred W. Young. (Sixteenth Annual, 1930)-----	. 10

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359	An Investigation of the Effectiveness of Ignition Sparks. By Melville F. Peters, Wayne L. Summerville, and Merlin Davis. (Sixteenth Annual, 1930)-----	\$0. 10
363	Pressure Fluctuations in a Common-Rail Fuel Injection System. By A. M. Rothrock. (Sixteenth Annual, 1930)-----	. 10
373	Coefficients of Discharge of Fuel Injection Nozzles for Compression-Ignition Engines. By A. G. Gelalles. (Seventeenth Annual, 1931)---	. 10
374	The Automotive Ignition Coil. By T. H. Darnell. Note by F. B. Silsbee. (Seventeenth Annual, 1931)-----	. 25
384	The Comparative Performance of Superchargers. By Oscar W. Schey (Seventeenth Annual, 1931)-----	. 05
390	The Effect of Valve Timing upon the Performance of a Supercharged Engine at Altitude and an Unsupercharged Engine at Sea Level. By Oscar W. Schey and Arnold E. Biermann. (Seventeenth Annual, 1931)-----	. 10
396	Hydraulics of Fuel Injection Pumps for Compression-Ignition Engines. By A. M. Rothrock. (Seventeenth Annual, 1931)-----	. 25
399	Flame Movement and Pressure Development in an Engine Cylinder. By Charles F. Marvin, Jr. and Robert D. Best. (Seventeenth Annual, 1931)-----	. 10
401	Combustion in High-Speed Compression-Ignition Engine. By A. M. Rothrock. (Eighteenth Annual, 1932)-----	. 15
402	Effect of Orifice Length-Diameter Ratio on Fuel Sprays for Compression-Ignition Engines. By A. G. Gelalles. (Eighteenth Annual, 1932)---	. 15
403	Ice Prevention on Aircraft by Means of Engine Exhaust Heat and a Technical Study of Heat Transmission from a Clark Y Airfoil. By Theodore Theodorsen and William C. Clay. (Eighteenth Annual, 1932)-----	. 20
404	The Effect of Increased Carburetor Pressure on Engine Performance at Several Compression Ratios. By Oscar W. Schey and Vern G. Rollin. (Eighteenth Annual, 1932)-----	. 10

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409	The Elimination of Fire Hazard Due to Back Fires. Theodore Theodorsen and Ira M. Freeman. (Eighteenth Annual, 1932)-----	\$0. 10
414	The Effect on Airplane Performance of the Factors that Must be Considered in Applying Low-Drag Cowling to Radial Engines. By Wm. H. McAvoy, Oscar W. Schey, and Alfred W. Young. (Eighteenth Annual, 1932)-----	. 20
425	The Effect of Nozzle Design and Operating Conditions on the Atomization and Distribution of Fuel Sprays. By Dana W. Lee. (Eighteenth Annual, 1932)-----	. 10
426	The Effect of Humidity on Engine Power at Altitude. By D. B. Brooks and E. A. Garlock. (Eighteenth Annual, 1932)-----	. 05
429	The N. A. C. A. Apparatus for Studying the Formation and Combustion of Fuel Sprays and the Results from Preliminary Tests. By A. M. Rothrock. (Eighteenth Annual, 1932)-----	. 10
433	Rates of Fuel Discharge as Affected by the Design of Fuel-Injection Systems for Internal-Combustion Engines. By A. G. Gelalles and E. T. Marsh. (Eighteenth Annual, 1932)-----	. 05
435	Fuel Vaporization and its Effect on Combustion in a High-Speed Compression-Ignition Engine. By A. M. Rothrock and C. D. Waldron. (Eighteenth Annual, 1932)-----	. 10
438	Experiments on the Distribution of Fuel in Fuel Sprays. By Dana W. Lee. (Eighteenth Annual, 1932)-----	. 10
440	The Mechanism of Atomization Accompanying Solid Injection. By R. A. Castleman, Jr. (Eighteenth Annual, 1932)-----	. 05
454	Photomicrographic Studies of Fuel Sprays. By Dana W. Lee and Robert C. Spencer. (Nineteenth Annual, 1933)-----	. 10
455	Penetration and Duration of Fuel Sprays from a Pump Injection System. By A. M. Rothrock and E. T. Marsh. (Nineteenth Annual, 1933)-----	. 05

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469	Increasing the Air Charge and Scavenging the Clearance Volume of a Compression-Ignition Engine. By J. A. Spanogle, C. W. Hicks, and H. H. Foster. (Nineteenth Annual, 1933)-----	\$0. 05
471	Performance of a Fuel-Injection Spark-Ignition Engine Using a Hydrogenated Safety Fuel. By Oscar W. Schey and Alfred W. Young. (Nineteenth Annual, 1933)-----	. 05
477	Effect of Viscosity on Fuel Leakage between Lapped Plungers and Sleeves and on the Discharge from a Pump-Injection System. By A. M. Rothrock and E. T. Marsh. (Twentieth Annual, 1934)-----	. 10
483	Effect of Moderate Air Flow on the Distribution of Fuel Sprays after Injection Cut-Off. By A. M. Rothrock and R. C. Spencer. (Twentieth Annual, 1934)-----	. 10
486	Infrared Radiation from Explosions in a Spark-Ignition Engine. By Charles F. Marvin, Jr., Frank R. Caldwell, and Sydney Steele. (Twentieth Annual, 1934)-----	. 10
488	Heat Transfer from Finned Metal Cylinders in an Air Stream. By Arnold E. Biermann and Benjamin Pinkel. (Twentieth Annual, 1934)...	. 10
493	The Physical Effects of Detonation in a Closed Cylindrical Chamber. By C. S. Draper. (Twentieth Annual, 1934)-----	. 10
495	A Description and Test Results of a Spark-Ignition and a Compression-Ignition 2-Stroke-Cycle Engine. By J. A. Spanogle and E. G. Whitney. (Twentieth Annual, 1934)-----	. 10
511	The Effect of Baffles on the Temperature Distribution and Heat-Transfer Coefficients of Finned Cylinders. By Oscar W. Schey and Vern G. Rollin. (Twenty-first Annual, 1935)-----	. 10
512	Some Factors Affecting Combustion in an Internal-Combustion Engine. By A. M. Rothrock and Mildred Cohn. (Twenty-first Annual, 1935)-----	. 10
520	A Comparison of Fuel Sprays from Several Types of Injection Nozzles. By Dana W. Lee. (Twenty-first Annual, 1935)-----	. 25

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525	Some Effects of Injection Advance Angle, Engine-Jacket Temperature, and Speed on Combustion in a Compression-Ignition Engine. By A. M. Rothrock and C. D. Waldron. (Twenty-first Annual, 1935)-----	\$0. 10
533	Distribution and Regularity of Injection from a Multicylinder Fuel-Injection Pump. By A. M. Rothrock and E. T. Marsh. (Twenty-first Annual, 1935)-----	. 10
544	Combustion in a Bomb with a Fuel-Injection System. By Mildred Cohn and Robert C. Spencer. (Twenty-second Annual, 1936)----	. 10
545	Effects of Air-Fuel Ratio on Fuel Spray and Flame Formation in a Compression-Ignition Engine. By A. M. Rothrock and C. D. Waldron. (Twenty-second Annual, 1936)-----	. 05
550	Cooling Characteristics of a 2-Row Radial Engine. By Oscar W. Schey and Vern G. Rollin. (Twenty-second Annual, 1936)-----	. 10
555	Air Flow Around Finned Cylinders. By M. J. Brevoort and Vern G. Rollin. (Twenty-second Annual, 1936)-----	. 10
556	Further Studies of Flame Movement and Pressure Development in an Engine Cylinder. By Charles F. Marvin, Jr., Armistead Wharton, and Carl H. Roeder. (Twenty-second Annual, 1936)-----	. 10
561	Effect of Nozzle Design on Fuel Spray and Flame Formation in a High-Speed Compression-Ignition Engine. By A. M. Rothrock and C. D. Waldron. (Twenty-second Annual, 1936)-----	. 10
565	Measurements of Fuel Distribution Within Sprays for Fuel-Injection Engines. By Dana W. Lee. (Twenty-second Annual, 1936)----	. 10
568	The Quiescent-Chamber Type Compression-Ignition Engine. By H. H. Foster. (Twenty-second Annual, 1936)-----	. 10
577	Prechamber Compression-Ignition Engine Performance. By Charles S. Moore and John H. Collins, Jr. (Twenty-third Annual, 1937)----	. 10

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587	Blower Cooling of Finned Cylinders. By Oscar W. Schey and Herman H. Ellerbrock, Jr. (Twenty-third Annual, 1937)-----	. 10
588	Fuel Spray and Flame Formation in a Compression-Ignition Engine Employing Air Flow. By A. M. Rothrock and C. D. Waldron. (Twenty-third Annual, 1937)-----	. 10
592	Full-Scale Tests of N. A. C. A. Cowlings. By Theodore Theodorsen, M. J. Brevoort, and George W. Stickle. (Twenty-third Annual, 1937)-----	. 15
593	Cooling of Airplane Engines at Low Air Speeds. By Theodore Theodorsen, M. J. Brevoort, and George W. Stickle. (Twenty-third Annual, 1937)-----	. 10
595	Full-Scale Tests of a New Type N. A. C. A. Nose-Slot Cowling. By Theodore Theodorsen, M. J. Brevoort, George W. Stickle, and M. N. Gough. (Twenty-third Annual, 1937)-----	. 10
596	Cooling Tests of a Single-Row Radial Engine with Several N. A. C. A. Cowlings. By M. J. Brevoort, George W. Stickle, and Herman H. Ellerbrock, Jr. (Twenty-third Annual, 1937)-----	. 10
612	Heat-Transfer Processes in Air-Cooled Engine Cylinders. By Benjamin Pinkel. (Twenty-fourth Annual, 1938)-----	. 10
616	Interrelation of Exhaust-Gas Constituents. By Harold C. Gerrish and Fred Voss. (Twenty-fourth Annual, 1938)-----	. 10
617	Auto-Ignition and Combustion of Diesel Fuel in a Constant-Volume Bomb. By Robert F. Selden. (Twenty-fourth Annual, 1938)-----	-----

FUELS

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3 42	A New Process for the Production of Aircraft-Engine Fuels. By Auguste Jean Paris, jr., and W. Francklyn Paris. (Fourth Annual, 1918)-----	-----
3 47	Power Characteristics of Fuels for Aircraft Engines. (Fourth Annual, 1918)----- Part I. Power Characteristics of Aviation Gasoline. By H. C. Dickinson, W. S. James, E. W. Roberts, V. R. Gage, and D. R. Harper.	-----
	Part II. Power Characteristics of Sumatra and Borneo Gasolines. By E. W. Roberts. Part III. Power Characteristics of 20 per cent Benzol Mixture. By E. W. Roberts.	
89	Comparison of Alcogas Aviation Fuel with Export Aviation Gasoline. By V. R. Gage, S. W. Sparrow, and D. R. Harper. (Sixth Annual, 1920)-----	\$0. 05
90	Comparison of Hector Fuel with Export Aviation Gasoline. By H. C. Dickinson, V. R. Gage, and S. W. Sparrow. (Sixth Annual, 1920)-----	. 05
232	Fuels for High-Compression Engines. By Stan-wood W. Sparrow. (Eleventh Annual, 1925)-----	. 10
280	The Gaseous Explosive Reaction—The Effect of Inert Gases. By F. W. Stevens. (Thirteenth Annual, 1927)-----	. 10
305	The Gaseous Explosive Reaction—A study of the Kinetics of Composite Fuels. By F. W. Stevens. (Fourteenth Annual, 1928)-----	. 15
321	Fuel Vapor Pressures and the Relation of Vapor Pressure to the Preparation of Fuel for Combustion in Fuel Injection Engines. By W. F. Joachim and A. M. Rothrock. (Fifteenth Annual, 1929)-----	. 10
337	The Gaseous Explosive Reaction at Constant Pressure—The Reaction Order and Reaction Rate. By F. W. Stevens. (Sixteenth Annual, 1930)-----	. 10
372	The Gaseous Explosive Reaction—The Effect of Pressure on the Rate of Propagation of the Reaction Zone and upon the Rate of Molecular Transformation. By F. W. Stevens. (Seventeenth Annual, 1931)-----	. 15

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531	The Effect of Water Vapor on Flame Velocity in Equivalent CO-O ₂ Mixtures. By Ernest F. Fiock and H. Kendall King. (Twenty-first Annual, 1935)-----	. 05
532	The Soap-Bubble Method of Studying the Combustion of Mixtures of CO and O ₂ . By Ernest F. Fiock and Carl H. Roeder. (Twenty-first Annual, 1935)-----	. 05
535	Hydrogen as an Auxiliary Fuel in Compression-Ignition Engines. By Harold C. Gerrish and Hampton H. Foster. (Twenty-first Annual, 1935)-----	. 10
553	Some Effects of Argon and Helium Upon Explosions of Carbon Monoxide and Oxygen. By Ernest F. Fiock and Carl H. Roeder. (Twenty-second Annual, 1936)-----	. 10

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40	The Ferrosilicon Process for the Generation of Hydrogen. (Fourth Annual, 1918)----- Part I. Generation of Hydrogen from Ferrosilicon and Sodium Hydroxide. By E. R. Weaver, W. M. Berry, and B. L. Bohnsen. Part II. The Effect of the Presence of Sodium Carbonate on the Generation of Hydrogen from Ferrosilicon and Sodium Hydroxide. By E. R. Weaver and B. D. Gordon. Part III. The Use of Lime in the Generation of Hydrogen by the Use of Ferrosilicon. By B. D. Gordon.	\$0. 15
41	Testing of Balloon Gas. By Junius David Edwards. (Fourth Annual, 1918)-----	. 05

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³ 80	Stability of the Parachute and Helicopter. By H. Bateman. (Fifth Annual, 1919)-----	-----

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116	Applications of Modern Hydrodynamics to Aeronautics. By L. Prandtl. (Seventh Annual, 1921)-----	-----
405	Application of Practical Hydrodynamics to Airship Design. By Ralph H. Upson and W. A. Klikoff. (Eighteenth Annual, 1932)-----	\$0. 15
470	The N. A. C. A. Tank—A High-Speed Towing Basin for Testing Models of Seaplane Floats. By Starr Truscott. (Nineteenth Annual, 1933)-----	. 10
503	The Effect of Spray Strips on the Take-Off Performance of a Model of a Flying-Boat Hull. By Starr Truscott. (Twentieth Annual, 1934)-----	. 10
543	Tank Tests of N. A. C. A. Model 40 Series of Hulls for Small Flying Boats and Amphibians. By John B. Parkinson and John R. Dawson. (Twenty-second Annual, 1936)-----	. 15

INSTRUMENTS

¹ 2	Investigation of Pitot Tubes. By the United States Bureau of Standards. (First Annual, 1915)----- Part I. The Pitot Tube and Other Anemometers for Aeroplanes. By W. H. Herschel. Part II. The Theory of the Pitot and Venturi Tubes. By E. Buckingham.	-----
³ 8	General Specifications Covering Requirements of Aeronautic Instruments. By National Advisory Committee for Aeronautics. (Second Annual, 1916)-----	-----

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32	The Airplane Tensiometer. By L. J. Larson. (Fourth Annual, 1918)-----	. 05
³ 50	Calculation of Low-Pressure Indicator Diagrams. By E. C. Kemble. (Fourth Annual, 1918)-----	-----
³ 81	Comparison of United States and British Standard Pitot-Static Tubes. By A. F. Zahm and R. H. Smith. (Fifth Annual, 1919)-----	-----
94	The Efficiency of Small Bearings in Instruments of the Type Used in Aircraft. By F. H. Norton. (Sixth Annual, 1920)-----	. 05
99	Accelerations in Flight. By F. H. Norton and E. T. Allen. (Sixth Annual, 1920)-----	. 10
³ 100	Accelerometer Design. By F. H. Norton and Edward P. Warner. (Sixth Annual, 1920)-----	-----
³ 107	A High-Speed Engine Pressure Indicator of the Balanced Diaphragm Type. By H. C. Dickinson and F. B. Newell. (Sixth Annual, 1920)-----	-----
³ 110	The Altitude Effect on Air Speed Indicators. By Mayo D. Hersey, Franklin L. Hunt, and Herbert N. Eaton. (Sixth Annual, 1920)-----	-----
125	Aeronautic Instruments: Section I—General Classification of Instruments and Problems, Including Bibliography. By Mayo D. Hersey, Bureau of Standards. (Seventh Annual, 1921)-----	. 05
126	Aeronautic Instruments: Section II—Altitude Instruments. By Bureau of Standards. (Seventh Annual, 1921)-----	. 25
	Part I. Altimeters and Barographs. By A. H. Mears, H. B. Henrickson, and W. G. Brombacher.	
	Part II. Precision Altimeter Design. By John B. Peterson and John R. Freeman, Jr.	
	Part III. Statoscopes and Rate-of-Climb Indicators. By Atherton H. Mears.	
	Part IV. Aerographs and Strut Thermometers. By John A. C. Warner.	

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128	Aeronautic Instruments: Section IV—Direction Instruments. By Bureau of Standards. (Seventh Annual, 1921)----- Part I. Inclinometers and Banking Indicators. By W. S. Franklin and M. H. Stillman. Part II. The Testing and Use of Magnetic Compasses for Airplanes. By R. L. Sanford. Part III. Aircraft Compasses—Description and Classification. By John A. C. Warner. Part IV. Turn Indicators. By R. C. Sylvander and E. W. Rounds.	. 25
³ 129	Aeronautic Instruments: Section V—Power Plant Instruments. By Bureau of Standards. (Seventh Annual, 1921)----- Part I. Airplane Tachometers. By G. E. Washburn. Part II. Testing of Airplane Tachometers. By R. C. Sylvander. Part III. Thermometers for Aircraft Engines. By E. F. Mueller and R. M. Wilhelm. Part IV. Air Pressure and Oil Pressure Gages. By H. N. Eaton. Part V. Gasoline Depth Gages and Flowmeters for Aircraft. By John A. C. Warner.	. 10
130	Aeronautic Instruments: Section VI—Oxygen Instruments. By F. L. Hunt, Bureau of Standards. (Seventh Annual, 1921)-----	

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132	Aeronautic Instruments: Section VIII—Recent Developments and Outstanding Problems. By F. L. Hunt, Bureau of Standards. Seventh Annual, 1921)-----	. 05
² 156	The Altitude Effect on Air Speed Indicators—II. By H. N. Eaton and W. A. MacNair. (Eighth Annual, 1922)-----	
³ 160	An Airship Slide Rule. By E. R. Weaver and S. F. Pickering. (Ninth Annual, 1923)-----	
² 165	Diaphragms for Aeronautic Instruments. By M. D. Hersey. (Ninth Annual, 1923)-----	
³ 166	The Aerodynamic Plane Table. By A. F. Zahm. (Ninth Annual, 1923)-----	
176	A Constant-Pressure Bomb. By F. W. Stevens. (Ninth Annual, 1923)-----	. 05
198	Astronomical Methods in Aerial Navigation. By K. Hilding Beij. (Tenth Annual, 1924)---	. 15
199	Interference Tests on an N. A. C. A. Pitot Tube. By Elliott G. Reid. (Tenth Annual, 1924)---	. 05
³ 206	Nonmetallic Diaphragms for Instruments. By H. N. Eaton and C. T. Buckingham. (Tenth Annual, 1924)-----	
264	Differential Pressures on a Pitot-Venturi and a Pitot-Static Nozzel over 360° Pitch and Yaw. By R. M. Bear. (Thirteenth Annual, 1927)---	. 05
270	The Measurement of Pressure Through Tubes in Pressure Distribution Tests. By Paul E. Hemke. (Thirteenth Annual, 1927)-----	. 10
299	Investigation of Damping Liquids for Aircraft Instruments. By G. H. Keulegan. (Fourteenth Annual, 1928)-----	. 10
310	Pressure Element of Constant Logarithmic Stiffness for Temperature Compensated Altimeter. By W. G. Brombacher and F. Cordero. (Fifteenth Annual, 1929)-----	. 10

² Out of print. Available as a separate report for reference or loan in the Office of Aeronautical Intelligence, National Advisory Committee for Aeronautics.

INSTRUMENTS—Continued

No.	Title	Price
320	The Measurement of Fluctuations of Air Speed by the Hot Wire Anemometer. By H. L. Dryden and A. M. Kuethe. (Fifteenth Annual, 1929)-----	\$0. 15
358	Temperature Coefficient of the Modulus of Rigidity of Aircraft Instrument Diaphragm and Spring Materials. By W. G. Brombacher and E. R. Melton. (Sixteenth Annual, 1930)-----	. 10
371	Present Status of Aircraft Instruments. By Subcommittee on Instruments, National Advisory Committee for Aeronautics. (Seventeenth Annual, 1931)-----	. 15
388	Investigation of the Diaphragm Type Pressure Cell. By Theodore Theodorsen. (Seventeenth Annual, 1931)-----	. 10
398	Investigation of Damping Liquids for Aircraft Instruments—II. By M. R. Houseman and G. H. Keulegan. (Seventeenth Annual, 1931)-----	. 15
420	Aircraft Speed Instruments. By K. Hilding Beij. (Eighteenth Annual, 1932)-----	. 10
448	Improved Apparatus for the Measurement of Fluctuations of Air Speed in Turbulent Flow. By W. C. Mock, jr., and H. L. Dryden. (Nineteenth Annual, 1933)-----	. 10
466	Aircraft Power-Plant Instruments. By Harcourt Sontag and W. G. Brombacher. (Nineteenth Annual, 1933)-----	. 15
513	Experimental Investigation of the Robinson-Type Cup Anemometer. By M. J. Brevoort, and U. T. Joyner. (Twenty-first Annual, 1935)-----	. 10
524	A Turbulence Indicator Utilizing the Diffusion of Heat. By G. B. Schubauer. (Twenty-first Annual, 1935)-----	. 05
551	Aircraft Compass Characteristics. By John B. Peterson and Clyde W. Smith, (Twenty-second Annual, 1936)-----	. 10
598	Alternating-Current Equipment for the Measurement of Fluctuations of Air Speed in Turbulent Flow. By W. C. Mock, jr. (Twenty-third Annual, 1937)-----	. 10

INSTRUMENTS—Continued

No.	Title	Price
606	Electrical Thermometers for Aircraft. By John B. Peterson and S. H. J. Womack. (Twenty-third Annual, 1937)-----	\$0. 10

MATERIALS

¹ 5	Relative Worth of Improvements on Fabrics. By the Goodyear Tire and Rubber Company. (First Annual, 1915)-----	-----
¹ 6	Investigations of Balloon and Aeroplane Fabrics. By The United States Rubber Company. (First Annual, 1915)-----	-----
	Part I. Balloon and Aeroplane Fabrics. By Willis A. Gibbons and Omar H. Smith.	
	Part II. Skin Friction of Various Surfaces in Air. By Willis A. Gibbons.	
¹ 16	The Stretching of the Fabric and the Deformation of the Envelope in Nonrigid Balloons. (Third Annual, 1917)-----	-----
	Part I. The Stretching of the Fabric and the Shape of the Envelope. By Rudolf Haas.	
	Part II. The Deformation of the Envelope of the Siemens-Schuckert Airships. By Alexander Dietzius.	
¹ 22	Fabrics for Aeronautic Construction. By Subcommittee on Standardization and Investigation of Materials. (Third Annual, 1917)-----	-----
	Part I. Cotton Airplane Fabrics.	
	Part II. Balloon Fabrics.	
³ 33	Self-Luminous Materials. By N. E. Dorsey. (Fourth Annual, 1918)-----	-----
³ 34	Aluminum and Its Light Alloys. By Paul D. Merica. (Fourth Annual, 1918)-----	-----
¹ 36	The structure of Airplane Fabrics. By E. Dean Walen. (Fourth Annual, 1918)-----	-----
³ 37	Fabric Fastenings. By E. Dean Walen and R. T. Fisher. (Fourth Annual, 1918)-----	-----

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MATERIALS—Continued

No.	Title	Price
³ 38	Airplane Dopes and Doping. By W. H. Smith. (Fourth Annual, 1918)-----	-----
39	The Testing of Balloon Fabrics By Junius David Edwards and Irwin L. Moore. (Fourth Annual, 1918)-----	\$0. 05.
	Part I. Characteristic Exposure Tests of Balloon Fabrics.	
	Part II. Use of Ultra-Violet Light for Testing Balloon Fabrics.	
³ 65	The Kiln Drying of Woods for Airplanes. By Harry D. Tieman. (Fifth Annual, 1919)-----	-----
³ 66	Glues Used in Airplane Parts. By S. W. Allen and T. R. Truax. (Fifth Annual, 1919)-----	-----
³ 67	Supplies and Production of Aircraft Woods. By W. N. Sparhawk. (Fifth Annual, 1919)-----	-----
68	The Effect of Kiln Drying on the Strength of Airplane Woods. By T. R. C. Wilson. (Fifth Annual, 1919)-----	. 15
³ 84	Data on the Design of Plywood for Aircraft. By Armin Elmendorf. (Sixth Annual, 1920)-----	-----
³ 85	Moisture Resistant Finishes for Airplane Woods. By M. E. Dunlap. (Sixth Annual, 1920)-----	-----
248	The Corrosion of Magnesium and of the Magnesium Aluminum Alloys Containing Manganese. By J. A. Boyer. (Twelfth Annual 1926)-----	. 20
354	Aircraft Woods: Their Properties, Selection, and Characteristics. By L. J. Markwardt. (Sixteenth Annual, 1930)-----	. 20
490	The Weathering of Aluminum Alloy Sheet Materials Used in Aircraft. By Willard Mutchler. (Twentieth Annual, 1934)-----	. 15

METEOROLOGY

¹ 4	Preliminary Report on the Problem of the Atmosphere in Relation to Aeronautics. By Charles F. Marvin. (First Annual, 1915)-----	-----
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METEOROLOGY—Continued

No.	Title	Price
13	Meteorology and Aeronautics. By Wm. R. Blair. (Third Annual, 1917)----- Part I. Physical Properties and Dynamics of the Atmosphere. Part II. Topographic and Climatic Factors in Relation to Aeronautics. Part III. Current Meteorology and Its Use.	\$0. 10
² 147	Standard Atmosphere. By Willis Ray Gregg. (Eighth Annual, 1922)-----	
³ 216	The Reduction of Airplane Flight-Test Data to Standard Atmosphere Conditions. By Walter S. Diehl and E. P. Lesley. (Eleventh Annual, 1925)-----	
218	Standard Atmosphere—Tables and Data. By Walter S. Diehl. (Eleventh Annual, 1925)---	. 10
245	Meteorological Conditions along Airways. By W. R. Gregg. (Twelfth Annual, 1926)-----	. 10
³ 246	Tables for Calibrating Altimeters and Computing Altitudes Based on the Standard Atmosphere. By W. G. Brombacher. (Twelfth Annual, 1926)-----	
376	Some Approximate Equations for the Standard Atmosphere. By Walter S. Diehl. (Seventeenth Annual, 1931)-----	. 15
538	Altitude-Pressure Tables Based on the United States Standard Atmosphere. By W. G. Brombacher. (Twenty-first Annual, 1935)---	. 05

MISCELLANEOUS

308	Aircraft Accidents—Methods of Analysis. By the Special Committee on the Nomenclature, Subdivision, and Classification of Aircraft Accidents, National Advisory Committee for Aeronautics. (Fourteenth Annual, 1928)-----	\$0. 10
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³ Out of print. Available as a separate report for reference or loan in the Office of Aeronautical Intelligence, National Advisory Committee for Aeronautics.

MISCELLANEOUS—Continued

No.	Title	Price
357	Aircraft Accidents—Method of Analysis. By the Committee on Aircraft Accidents, National Advisory Committee for Aeronautics. (Sixteenth Annual, 1930)-----	\$0. 10
576	Aircraft Accidents—Method of Analysis. Report prepared by Committee on Aircraft Accidents, National Advisory Committee for Aeronautics. (Twenty-second Annual, 1936)---	
		. 10

NOMENCLATURE

¹ 9	Nomenclature for Aeronautics. By National Advisory Committee for Aeronautics. (Second Annual, 1916)-----	
³ 15	Nomenclature for Aeronautics. By National Advisory Committee for Aeronautics. (Third Annual, 1917)-----	
³ 25	Nomenclature for Aeronautics. By National Advisory Committee for Aeronautics. (Fourth Annual, 1918)-----	
³ 91	Nomenclature for Aeronautics. By National Advisory Committee for Aeronautics. (Sixth Annual, 1920)-----	
³ 157	Nomenclature for Aeronautics. By National Advisory Committee for Aeronautics. (Eighth Annual, 1922)-----	
³ 240	Nomenclature for Aeronautics. By National Advisory Committee for Aeronautics. (Twelfth Annual, 1926)-----	
474	Nomenclature for Aeronautics. By National Advisory Committee for Aeronautics. (Nineteenth Annual, 1933)-----	\$0. 20
	NOTE—Reports 9, 15, 25, 91, 157, and 240 are obsolete.	

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³ Out of print. Available as a separate report for reference or loan in the Office of Aeronautical Intelligence, National Advisory Committee for Aeronautics.

PARACHUTES

No.	Title	Price
³ 80	Stability of the Parachute and Helicopter. By H. Bateman. (Fifth Annual, 1919)-----	-----

PROPELLERS

³ 14	Experimental Research on Air Propellers. By William F. Durand. (Third Annual, 1917)----- Part I. The Aerodynamic Laboratory at Leland Stanford Junior University and the Equipment Installed with Special Reference to Tests on Air Propellers. Part II. Tests on 48 Model Forms of Air Propellers, with Analysis and Discussion of Results and Presentation of the Same in Graphic Form. Part III. A Brief Discussion of the Law of Similitude as Affecting the Relation Between the Results Derived from Model Forms and Those to be Anticipated from Full-sized Forms.	-----
¹ 19	Periodic Stresses in Gyroscopic Bodies with Applications to Air Screws. By A. F. Zahm. (Third Annual, 1917)----- Part I. The Gyroscopic Particle. Part II. The Gyroscopic Three-Dimensional Body.	-----
³ 29	The General Theory of Blade Screws. Including Propellers, Fans, Helicopter Screws, Helicoidal Pumps, Turbo-Motors, and Different Kinds of Helicoidal Brakes. By George de Bothezat. (Fourth Annual, 1918)-----	-----
¹ 30	Experimental Research on Air Propellers, II. By William F. Durand and E. P. Lesley. (Fourth Annual, 1918)-----	-----
64	Experimental Research on Air Propellers, III. By W. F. Durand and E. P. Lesley. (Fifth Annual, 1919)-----	\$0. 10

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PROPELLERS—Continued

No.	Title	Price
71	Slip-Stream Corrections in Performance Computation. By Edward P. Warner. (Fifth Annual, 1919)	\$0. 05
3 109	Experimental Research on Air Propellers, IV. By W. F. Durand and E. P. Lesley. (Sixth Annual, 1920)	
3 113	Tests on Air Propellers in Yaw. By W. F. Durand and E. P. Lesley. (Seventh Annual, 1921)	
141	Experimental Research on Air Propellers, V. By W. F. Durand and E. P. Lesley. (Eighth Annual, 1922)	. 15
3 168	The General Efficiency Curve for Air Propellers. By Walter S. Diehl. (Ninth Annual, 1923)	
3 175	Analysis of W. F. Durand's and E. P. Lesley's Propeller Tests. By Max M. Munk. (Ninth Annual, 1923)	
3 177	The Effect of Slipstream Obstructions on Air Propellers. By E. P. Lesley and B. M. Woods. (Ninth Annual, 1923)	
3 178	Relative Efficiency of Direct and Geared Drive Propellers. By Walter S. Diehl. (Ninth Annual, 1923)	
3 183	The Analysis of Free Flight Propeller Tests and Its Application to Design. By Max M. Munk. (Ninth Annual, 1923)	
3 186	The Application of Propeller Test Data to Design and Performance Calculations. By Walter S. Diehl. (Tenth Annual, 1924)	
3 196	Comparison of Model Propeller Tests with Airfoil Theory. By W. F. Durand and E. P. Lesley. (Tenth Annual, 1924)	
220	Comparison of Tests on Air Propellers in Flight with Wind-Tunnel Model Tests on Similar Forms. By W. F. Durand and E. P. Lesley. (Eleventh Annual, 1925)	
3 235	Interaction between Air Propellers and Airplane Structures. By W. F. Durand. (Twelfth Annual, 1926)	. 15
237	Tests on Thirteen Navy Type Model Propellers. By W. F. Durand. (Twelfth Annual, 1926)	

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PROPELLERS—Continued

No.	Title	Price
259	Characteristics of Propeller Sections Tested in the Variable Density Wind Tunnel. By Eastman N. Jacobs. (Thirteenth Annual, 1927)---	\$0. 10
292	Characteristics of Five Propellers in Flight. By J. W. Crowley, Jr., and R. E. Mixson. (Fourteenth Annual, 1928)-----	. 15
301	Full-Scale Tests of Wood Propellers on a VE-7 Airplane in the Propeller Research Tunnel. By Fred E. Weick. (Fourteenth Annual, 1928)-----	. 15
302	Full-Scale Tests on a Thin Metal Propeller at Various Tip Speeds. By Fred E. Weick. (Fourteenth Annual, 1928)-----	. 10
306	Full-Scale Wind-Tunnel Tests of a Series of Metal Propellers on a VE-7 Airplane. By Fred E. Weick. (Fourteenth Annual, 1928)---	. 10
326	Tests of Five Metal Model Propellers with Various Pitch Distributions in a Free Wind Stream and in Combination with a Model VE-7 Fuselage. By E. P. Lesley and Elliott G. Reid. (Fifteenth Annual, 1929)-----	. 15
338	The Effect of Reduction Gearing on Propeller-Body Interference as Shown by Full Scale Wind Tunnel Tests. By Fred E. Weick. (Sixteenth Annual, 1930)-----	. 15
339	Full-Scale Wind-Tunnel Tests with a Series of Propellers of Different Diameters on a Single Fuselage. By Fred E. Weick. (Sixteenth Annual, 1930)-----	. 15
340	Full-Scale Wind-Tunnel Tests on Several Metal Propellers Having Different Blade Forms. By Fred E. Weick. (Sixteenth Annual, 1930)---	. 10
350	Working Charts for the Selection of Aluminum Alloy Propellers of a Standard Form to Operate with Various Aircraft Engines and Bodies. By Fred E. Weick. (Sixteenth Annual, 1930)-----	. 10
351	Full-Scale Wind-Tunnel Tests of a Propeller with the Diameter Changed by Cutting Off the Blade Tips. By Donald H. Wood. (Sixteenth Annual, 1930)-----	. 15

PROPELLERS—Continued

No.	Title	Price
375	Full-Scale Tests of Metal Propellers at High Tip Speeds. By Donald H. Wood. (Seventeenth Annual, 1931)-----	\$0. 10
378	Comparison of Full-Scale Propellers Having R. A. F.-6 and Clark Y Airfoil Sections. By Hugh B. Freeman. (Seventeenth Annual, 1931)-----	. 10
389	The Effect of Small Angles of Yaw and Pitch on the Characteristics of Airplane Propellers. By Hugh B. Freeman. (Seventeenth Annual, 1931)-----	. 10
415	Tests of Nacelle-Propeller Combinations in Various Positions with Reference to Wings. Part I—Thick Wing—N. A. C. A. Cowled Nacelle—Tractor Propeller. By Donald H. Wood. (Eighteenth Annual, 1932)-----	. 10
421	Measurement of the Differential and Total Thrust and Torque of Six Full-Scale Adjustable-Pitch Propellers. By George W. Stickle. (Eighteenth Annual, 1932)-----	. 10
436	Tests of Nacelle-Propeller Combinations in Various Positions with Reference to Wings. II—Thick Wing—Various Radial-Engine Cowlings—Tractor Propeller. By Donald H. Wood. (Eighteenth Annual, 1932)-----	. 10
447	Static Thrust of Airplane Propellers. By Walter S. Diehl. (Nineteenth Annual, 1933)-----	. 10
462	Tests of Nacelle-Propeller Combinations in Various Positions with Reference to Wings III—Clark Y Wing—Various Radial-Engine Cowlings—Tractor Propeller. By Donald H. Wood. (Nineteenth Annual, 1933)-----	. 10
464	Negative Thrust and Torque Characteristics of an Adjustable-Pitch Metal Propeller. By Edwin P. Hartman. (Nineteenth Annual, 1933)-----	. 05
481	Working Charts for the Determination of Propeller Thrust at Various Air Speeds. By Edwin P. Hartman (Twentieth Annual, 1934)---	. 10

PROPELLERS—Continued

No.	Title	Price
505	Tests of Nacelle-Propeller Combinations in Various Positions with Reference to Wings. IV—Thick Wing—Various Radial-Engine Cowlings—Tandem Propellers. By James G. McHugh. (Twentieth Annual, 1934)-----	\$0. 15
506	Tests of Nacelle-Propeller Combinations in Various Positions with Reference to Wings. V—Clark Y Biplane Cellule—N. A. C. A. Cowled Nacelle—Tractor Propeller. By E. Floyd Valentine. (Twentieth Annual, 1934)---	. 10
507	Tests of Nacelle-Propeller Combinations in Various Positions with Reference to Wings. VI—Wings and Nacelles with Pusher Propeller. By Donald H. Wood and Carlton Bioletti. (Twentieth Annual, 1934)-----	. 10
564	Tests of a Wing-Nacelle-Propeller Combination at Several Pitch Settings up to 42°. By Ray Windler. (Twenty-second Annual, 1936)-----	. 10
569	Wing-Nacelle-Propeller Interference for Wings of Various Spans—Force and Pressure-Distribution Tests. By Russell G. Robinson and William H. Herrnstein, Jr. (Twenty-second Annual, 1936)-----	. 10
594	Characteristics of Six Propellers Including the High-Speed Range. By Theodore Theodorsen, George W. Stickle, and M. J. Brevoort. (Twenty-third Annual, 1937)-----	. 15
597	Air Propellers in Yaw. By E. P. Lesley, George F. Worley and Stanley Moy. (Twenty-third Annual, 1937)-----	. 10
599	Flight Tests of the Drag and Torque of the Propeller in Terminal-Velocity Dives. By Richard V. Rhode and Henry A. Pearson. (Twenty-third Annual, 1937)-----	. 10

ROTOR PLANES

434	Lift and Drag Characteristics and Gliding Performance of an Autogiro as Determined in Flight. By John B. Wheatley. (Eighteenth Annual, 1932)-----	\$0. 05
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ROTOR PLANES—Continued

No.	Title	Price
475	Wing Pressure Distribution and Rotor-Blade Motion of an Autogiro as Determined in Flight. By John B. Wheatley. (Twentieth Annual, 1934)-----	\$0. 05
487	An Aerodynamic Analysis of the Autogiro Rotor with a Comparison Between Calculated and Experimental Results. By John B. Wheatley, (Twentieth Annual, 1934)-----	. 05
515	Full-Scale Wind-Tunnel Tests of a PCA-2 Autogiro Rotor. By John B. Wheatley and Manley J. Hood. (Twenty-first Annual, 1935)-----	. 05
523	The Influence of Wing Setting on the Wing Load and Rotor Speed of a PCA-2 Autogiro as Determined in Flight. By John B. Wheatley, (Twenty-first Annual, 1935)-----	. 05
536	Wind-Tunnel Tests of a 10-foot-Diameter Gyroplane Rotor. By John B. Wheatley and Carlton Bioletti. (Twenty-first Annual, 1935)-----	. 05
552	Wind-Tunnel Tests of 10-Foot-Diameter Autogiro Rotors. By John B. Wheatley and Carlton Bioletti. (Twenty-second Annual, 1936)-----	. 10
591	An Analytical and Experimental Study of the Effect of Periodic Blade Twist on the Thrust, Torque, and Flapping Motion of an Autogiro Rotor. By John B. Wheatley. (Twenty-third Annual, 1937)-----	. 10
600	An Analysis of the Factors that Determine the Periodic Twist of an Autogiro Rotor Blade, with a Comparison of Predicted and Measured Results. By John B. Wheatley. (Twenty-third Annual, 1937)-----	. 10

SEAPLANES

³ 209	Characteristics of a Single Float Seaplane during Take-Off. By J. W. Crowley, jr., and K. M. Ronan. (Tenth Annual, 1924)-----	
³ 226	Characteristics of a Boat Type Seaplane during Take-Off. By J. W. Crowley, jr., and K. M. Ronan. (Eleventh Annual, 1925)-----	

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SEAPLANES—Continued

No.	Title	Price
242	Characteristics of a Twin-Float Seaplane during Take-Off. By John W. Crowley, jr., and K. M. Ronan. (Twelfth Annual, 1926)-----	\$0. 10
290	Water-Pressure Distribution on a Seaplane Float. By F. L. Thompson. (Fourteenth Annual, 1928)-----	. 10
328	Water Pressure Distribution on a Twin-Float Seaplane. By F. L. Thompson. (Fifteenth Annual, 1929)-----	. 10
346	Water Pressure Distribution on a Flying Boat Hull. By F. L. Thompson. (Sixteenth Annual, 1930)-----	. 10
453	The Estimation of Maximum Load Capacity of Seaplanes and Flying Boats. By Walter S. Diehl. (Nineteenth Annual, 1933)-----	. 05

STABILITY AND CONTROL

¹ 1	Report on Behavior of Aeroplanes in Gusts. By Massachusetts Institute of Technology. (First Annual, 1915)-----	-----
	Part I. Experimental Analysis of Inherent Longitudinal Stability for a Typical Biplane. By J. C. Hunsaker.	
	Part II. Theory of an Aeroplane Encountering Gusts. By E. B. Wilson.	
¹ 17	An Investigation of the Elements which Contribute to Statical and Dynamical Stability, and of the Effects of Variation in those Elements. By Alexander Klemin, Edward P. Warner, and George M. Denkinger. (Third Annual, 1917)-----	-----
¹ 21	Theory of an Airplane Encountering Gusts, II. By E. B. Wilson. (Third Annual, 1917)-----	-----
³ 26	The Variation of Yawing Moment Due to Rolling. By Edwin Bidwell Wilson. (Fourth Annual, 1918)-----	-----

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STABILITY AND CONTROL—Continued

No.	Title	Price
3 27	Theory of an Airplane Encountering Gusts, III. By Edwin Bidwell Wilson. (Fourth Annual, 1918)-----	-----
3 95	Diagrams of Airplane Stability. By H. Bate- man. (Sixth Annual, 1920)-----	-----
3 96	Statical Longitudinal Stability of Airplanes. By Edward P. Warner. (Sixth Annual, 1920)-----	-----
3 112	Control in Circling Flight. By F. H. Norton and E. T. Allen. (Seventh Annual, 1921)-----	-----
1 120	Practical Stability and Controllability of Air- planes. By F. H. Norton. (Seventh Annual, 1921)-----	-----
3 153	Controllability and Maneuverability of Air- planes. By F. H. Norton and W. G. Brown. (Eighth Annual, 1922)-----	-----
3 172	Dynamic Stability as Affected by the Longi- tudinal Moment of Inertia. By Edwin B. Wilson. (Ninth Annual, 1923)-----	-----
293	Two Practical Methods for the Calculation of the Horizontal Tail Area Necessary for a Statically Stable Airplane. By Walter S. Diehl. (Fourteenth Annual, 1928)-----	\$0. 10
298	Effect of Variation of Chord and Span of Ailerons on Rolling and Yawing Moments in Level Flight. By R. H. Heald and D. H. Strother. (Fourteenth Annual, 1928)-----	. 10
343	Effect of Variation of Chord and Span of Ailerons on Rolling and Yawing Moments at Several Angles of Pitch. By R. H. Heald, D. H. Strother, and B. H. Monish. (Sixteenth Annual, 1930)-----	. 15
379	Rolling Moments due to Rolling and Yaw for Four Wing Models in Rotation. By Mont- gomery Knight and Carl J. Wenzinger. (Seventeenth Annual, 1931)-----	. 15
386	Maneuverability Investigation of an F6C-4 Fighting Airplane. By C. H. Dearborn and H. W. Kirschbaum. (Seventeenth Annual, 1931)-----	. 20

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STABILITY AND CONTROL—Continued

No.	Title	Price
393	Span-Load Distribution as a Factor in Stability in Roll. By Montgomery Knight and Richard W. Noyes. (Seventeenth Annual, 1931)-----	\$0. 10
419	Wind-Tunnel Research Comparing Lateral Control Devices, Particularly at High Angles of Attack. I—Ordinary Ailerons on Rectangular Wings. By Fred E. Weick and Carl J. Wenzinger. (Eighteenth Annual, 1932)-----	.
422	Wind-Tunnel Research Comparing Lateral Control Devices, Particularly at High Angles of Attack. II—Slotted Ailerons and Frise Ailerons. By Fred E. Weick and Richard W. Noyes. (Eighteenth Annual, 1932)-----	. 10
423	Wind-Tunnel Research Comparing Lateral Control Devices Particularly at High Angles of Attack. III—Ordinary Ailerons Rigged up 10° when Neutral. By Fred E. Weick and Carl J. Wenzinger. (Eighteenth Annual, 1932)-----	. 05
424	Wind-Tunnel Research Comparing Lateral Control Devices, Particularly at High Angles of Attack. IV—Floating Tip Ailerons on Rectangular Wings. By Fred E. Weick and Thomas A. Harris. (Eighteenth Annual, 1932)-----	. 05
439	Wind-Tunnel Research Comparing Lateral Control Devices, Particularly at High Angles of Attack. V—Spoilers and Ailerons on Rectangular Wings. By Fred E. Weick and Joseph A. Shortal. (Eighteenth Annual, 1932)-----	. 10
442	A Comparison between the Theoretical and Measured Longitudinal Stability Characteristics of an Airplane. By Hartley A. Soulé and John B. Wheatley (Nineteenth Annual, 1933)-----	. 10
444	Wind-Tunnel Research Comparing Lateral Control Devices Particularly at High Angles of Attack. VI—Skewed Ailerons on Rectangular Wings. By Fred E. Weick and Thomas A. Harris. (Nineteenth Annual, 1933)-----	. 05
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STABILITY AND CONTROL—Continued

No.	Title	Price
457	Maneuverability Investigation of an "O3U-1" Observation Airplane. By F. L. Thompson and H. W. Kirschbaum. (Nineteenth Annual, 1933)-----	\$0. 05
467	The Experimental Determination of the Moments of Inertia of Airplanes. By Hartley A. Soulé and Marvel P. Miller. (Nineteenth Annual, 1933)-----	. 05
484	A Flight Investigation of the Effect of Mass Distribution and Control Setting on the Spinning of the XN2Y-1 Airplane. By N. F. Scudder. (Twentieth Annual, 1934)-----	. 05
499	Wind-Tunnel Research Comparing Lateral Control Devices, Particularly at High Angles of Attack. XII—Upper-Surface Ailerons on Wings with Split Flaps. By Fred E. Weick and Carl J. Wenzinger. (Twentieth Annual, 1934)-----	. 10
510	Wind-Tunnel Research Comparing Lateral Control Devices Particularly at High Angles of Attack. XIII—Auxiliary Airfoils Used as External Ailerons. By Fred E. Weick and Richard W. Noyes. (Twenty-first Annual, 1935)-----	. 10
521	An Analysis of Longitudinal Stability in Power-Off Flight with Charts for Use in Design. By Charles H. Zimmerman. (Twenty-first Annual, 1935)-----	. 10
548	Effect of Tip Shape and Dihedral on Lateral-Stability Characteristics. By Joseph A. Shortal. (Twenty-second Annual, 1936)-----	. 05
570	The Effect of Lateral Controls in Producing Motion of an Airplane as Computed from Wind-Tunnel Data. By Fred E. Weick and Robert T. Jones. (Twenty-second Annual, 1936)-----	. 10
578	Flight Measurements of the Dynamic Longitudinal Stability of Several Airplanes and a Correlation of the Measurements with Pilots' Observations of Handling Characteristics. By Hartley A. Soulé. (Twenty-third Annual, 1937)-----	. 10

STABILITY AND CONTROL—Continued

No.	Title	Price
579	A Study of the Two-Control Operation of an Airplane. By Robert T. Jones. (Twenty-third Annual, 1937)-----	\$0. 10
589	An Analysis of Lateral Stability in Power-Off Flight with Charts for Use in Design. By Charles H. Zimmerman. (Twenty-third Annual, 1937)-----	. 10
603	Wind-Tunnel Investigation of Wings with Ordinary Ailerons and Full-Span External-Airfoil Flaps. By Robert C. Platt and Joseph A. Shortal. (Twenty-third Annual, 1937)-----	. 10
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² 35	The Strength of One-Piece, Solid, Built-Up, and Laminated Wood Airplane Wing Beams. By John H. Nelson. (Fourth Annual, 1918)-----	
³ 76	Analysis of Fuselage Stresses. By Edward P. Warner and Roy G. Miller. (Fifth Annual, 1919)-----	
³ 82	Airplane Stress Analysis. By Bureau of Construction and Repair, U. S. Navy. (Fifth Annual, 1919)-----	
	Part I. General Considerations. By A. F. Zahm.	
	Part II. Airplane Wing Stresses. By A. F. Zahm.	
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